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EXAMINER
PULLIAS, JESSE SCOTT

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>27 September 2010</u>.

2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-17</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1-17</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date <u>01/26/11</u>.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____ .

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1.   A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 09/27/10 has been entered.

2.   This office action is in response to correspondence filed 04/14/10 regarding application 10/550967, in which claims 1, 2, 7, and 8 were amended. Claims 1-17 are pending in the application and have been considered.

Response to Arguments

3.   The arguments on pages 7-12 of the Remarks have been considered but are moot in view of the new grounds of rejection.

Claim Rejections - 35 USC § 101

4.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5.   Claims 7-17 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

6.   Claims 7-17 are directed to non-statutory subject matter because the claims do

not require that the method be implemented by a particular machine or particularly

transform a particular article.

        Independent claim 7 nominally recites the term "computer-implemented method"

in the preamble, however, the method steps do not require a computer, or any other

particular machine, to perform any of them. For example, "*examining at least one*

source of knowledge that is independent of the speech recognition device with respect

to text elements, including word parts, words and/or word sequences that can be

confused with one another" could be performed by manually examining a paper

dictionary; "*including the text elements that can be confused with one another as a list*

of alternatives in the entry of the lexicon of alternatives" could be performed by writing

down a list of similar sounding words; and "*wherein the list of alternatives in the entry is*

updated based, at least in part, on whether a frequency of previous corrections of the

recognized text with text element replacements selected by a user is within

predetermined bounds" could be performed manually writing down updates to the list

based on whether a particular word had been corrected previously from a transcript.

Therefore, the term "computer-implemented" in the preamble has not been given

patentable weight and so fails to require that the method be implemented on a

computer. Although the preamble also nominally mentions an intended field of use for

the method (i.e. "*to correct recognized text transcribed from a spoken text by a speech*

recognition device"), the claim language does not require that the method steps be

implemented on or using a speech recognition device; rather, "*text transcribed from a*

spoken text by a speech recognition device" could be a paper transcript which is manually proofread.

Similarly, none of the steps specified in dependent claims 7-17 require that the method be implemented by a particular machine.

Specifically, with respect to claim 8, "*determining the text element replacements made in a corrected text with respect to the recognized text transcribed by the speech recognition device; and recording the text element replacements as alternatives in the lexicon of alternatives*" could be done by manually examining which words have been corrected on a transcript and recording them on a sheet of paper.

With respect to claim 9, "*evaluating a frequency of each text element replacement, and recording the text element replacements as alternatives in the lexicon of alternatives only when a predetermined lower limit value of the frequency, expressed by an absolute number of the text element replacements or the ratio of number of the text element replacements with respect to the overall number of text elements examined or with respect to an overall occurrence of a given text element is exceeded*" could be performed by manually writing down only which words have been corrected at least once from a transcript.

With respect to claim 10, "*evaluating a frequency of each text element examined in the at least one source of knowledge; and recording the text element replacements as alternatives in the lexicon of alternatives only when a predetermined upper limit value of the frequency, expressed by an absolute number of the text element replacements or a ratio of a number of the text element replacements with respect to an overall number*

of text elements examined, is not reached" could be performed by manually writing

down only which words have not been corrected a certain number of times from a

transcript.

With respect to claim 11, "*analyzing the acoustic similarity of the text element*

replacements; and recording the text element replacements as alternatives in the

lexicon of alternatives only when the text element replacements have a predetermined

degree of phonetic similarity" could be performed by looking at a list of word corrections

and writing down words that sound alike.

With respect to claim 12, "*analyzing time positions of the text element*

replacements with respect to the spoken text; and recording the text element

replacements as alternatives in the lexicon of alternatives only when there is a

corresponding text element in the spoken text that is similar in terms of time" could be

performed by manually examining a timestamp and writing down words which are

similar in time.

With respect to claims 13-15, the claimed subdividing the plurality of entries

according to speech, technical field, or author, could all be done by manually examining

a list of words and writing them down by category.

With respect to claim 16, "*the lexicon of alternatives is adapted online during a*

correction of recognized texts" could be performed by manually changing which words

are written down in a list during proofreading.

With respect to claim 17, "*the at least one source of knowledge that is*

independent of the speech recognition device includes text files specific to the field of

application and/or confusion statistics, wherein the confusion statistics are compiled

from corrected texts and associated recognized texts generated by at least one speech

recognition device" could be performed by manually examining a printout of confusion

statistics and writing down which words are easily confusable.

Claims 7-17 do not particularly transform a particular article because they are all

directed to methods for manipulating and ranking lists of words.

Claim Rejections - 35 USC § 102

7.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8.   Claims 1-5, 7-9, 11, 13, and 16 are rejected under 35 U.S.C. 102(b) as being

anticipated by Franz et al. (6,278,968).

Consider claim 1, Franz discloses a speech recognition and correction system

comprising:

at least one speech recognition device configured to transcribe a spoken text into

a recognized text **(Fig 2,** speech recognizer 222**)**; and

a correction device configured to: correct the recognized text, said correction

device being connected to the at least one speech recognition device via a data

communications medium for the transmission of the recognized text and/or of the

spoken text (**Fig 12,** user interface 1298, User Selection/Configuration 1210);

      store a lexicon of alternatives, the lexicon of alternatives comprising a plurality of

entries (**Fig 12,** ordered list of utterance hypothesis 1208, **Fig 13,** list 1310);

      display at least some of the plurality of entries as a list of alternatives to individual

word parts, words and/or word sequences of the recognized text (**Fig 13,** list 1310); and

      update the list of alternatives for at least some of the plurality of entries in the

lexicon of alternatives displayed for a particular individual word part, word, and/or word

sequence based, at least in part, on a number of times that the correction device

previously corrected the particular individual word part, word, and/or word sequence

with a text element replacement selected by a user, wherein the list of alternatives is

updated only when the number of times is at least two times (**Col 17 lines 17-23,** a

particular correction which is made repeatedly accrues more likelihood of being a

correct alternative).

      Consider claim 2, Franz discloses a correction device for correcting a text

recognized by a speech recognition device, the correction device comprising:

      a storage device configured to store a lexicon of alternatives comprising a

plurality of entries (**Fig 2,** memory 200); and at least one processor (**Fig 2,** digital

processor 208) configured to:

      display at least some of the plurality of entries as a list of alternatives to individual

word parts, words and/or word sequences of the recognized text (**Fig 13,** list 1310); and

update the list of alternatives for at least some of the plurality of entries in the

lexicon of alternatives displayed for a particular individual word part, word, and/or word

sequence based, at least in part, on information about at least one previous correction

made by the correction device for the particular individual word part, word, and/or word

sequence with a text element replacement selected by a user, wherein the list of

alternatives is updated only when at least a predetermined degree of phonetic similarity

exists between the particular individual word part, word, and/or word sequence and a

text replacement in the at least one previous correction **(Col 17 lines 17-23,** a particular

correction is made repeatedly, i.e. the same word was selected, which is completely

phonetically similar to the previous correction, and thus accrues more likelihood of being

a correct alternative**)**.

Consider claim 7, Franz discloses a computer-implemented method of creating

an entry in a lexicon of alternatives used to correct recognized text transcribed from a

spoken text by a speech recognition device, the method comprising:

examining at least one source of knowledge that is independent of the speech

recognition device with respect to text elements, including word parts, words and/or

word sequences that can be confused with one another **(Fig 2,** language models 250,

acoustic models 260**)** and;

including the text elements that can be confused with one another as a list of

alternatives in the entry of the lexicon of alternatives **(Fig 4,** hypothesis construction

module 406, **Fig 13,** list 1310**)**;

wherein the list of alternatives in the entry is updated based, at least in part, on whether a frequency of previous corrections of the recognized text with text element replacements selected by a user is within predetermined bounds (**Col 17 lines 17-23,** a particular correction which is made repeatedly accrues more likelihood of being a correct alternative).

Consider claim 3, Franz discloses: an analyzer configured to analyze selected text passages of the recognized text by using character chain comparison or syntactic analysis (**Fig 2,** syntactic analyzer 234, **Fig 15**), and to determine alternatives to the selected text passages from the lexicon of alternatives (**Fig 15**).

Consider claim 4, Franz discloses the analyzer can be activated by a user of the correction device (**Fig 12,** user interface 1298).

Consider claim 5, Franz discloses the analyzer determines selected text passages from a cursor position or a marking information of a text processing program (**Fig 13**).

Consider claim 8, Franz discloses determining the text element replacements made in a corrected text with respect to the recognized text transcribed by the speech recognition device; and recording the text element replacements as alternatives in the lexicon of alternatives (**Fig 12, 13, Col 17 lines 17-23,** a particular correction which is

made repeatedly accrues more likelihood of being a correct alternative).

Consider claim 9, Franz discloses evaluating a frequency of each text element replacement, and recording the text element replacements as alternatives in the lexicon of alternatives only when a predetermined lower limit value of the frequency, expressed by an absolute number of the text element replacements or the ratio of number of the text element replacements with respect to the overall number of text elements examined or with respect to an overall occurrence of a given text element is exceeded **(Col 17 lines 17-23,** a particular correction which is made repeatedly accrues more likelihood of being a correct alternative).

Consider claim 11, Franz discloses analyzing the acoustic similarity of the text element replacements; and recording the text element replacements as alternatives in the lexicon of alternatives only when the text element replacements have a predetermined degree of phonetic similarity **(Col 17 lines 17-23,** a particular correction is made repeatedly, i.e. the same word was selected, which is completely phonetically similar to the previous correction, and thus accrues more likelihood of being a correct alternative).

Consider claim 13, Franz discloses subdividing the plurality of entries according to speech **(Fig 2,** syntactic analyzer).

Consider claim 16, Franz discloses the lexicon of alternatives is adapted online during a correction of recognized texts **(Col 17 lines 17-23)**.

Claim Rejections - 35 USC § 103

9.　　The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10.　　Claims 6, 14, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Franz et al. (6,278,968) in view of Mishelevich (WO 01/31634).

Consider claim 6, Franz does not, but Mishelevich determines selected text passages from a time position of the spoken text and its association with the recognized text **(p13 lines 20-24)**.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Franz by determining selected text passages from a time position of the spoken text and its association with the recognized text in order to increase the speed and efficiency of proofreading, as suggested by Mishelevich **(p2, lines 1-2)**.

Consider claim 14, Franz does not, but Mishelevich discloses subdividing the plurality of entries according to technical field or field of application **(p16, lines 1-9)**.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Mishelevich by subdividing the plurality of entries according to technical field or field of application for reasons similar to those for claim 6.

Consider claim 17, Franz does not, but Mishelevich discloses at least one source of knowledge that is independent of the speech recognition device includes text files specific to the field of application and/or confusion statistics, wherein the confusion statistics are compiled from corrected texts and associated recognized texts generated by at least one speech recognition device **(Fig 12)**.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Franz such that at least one source of knowledge that is independent of the speech recognition device includes text files specific to the field of application and/or confusion statistics, wherein the confusion statistics are compiled from corrected texts and associated recognized texts generated by at least one speech recognition device for reasons similar to those for claim 6.

11.   Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Franz et al. (6,278,968) in view of Ortega et al. (6,507,816), herein referred to as Ortega '816.

Consider claim 10, Franz does not, but Ortega '816 discloses evaluating a frequency of each text element examined in the at least one source of knowledge; and recording the text element replacements as alternatives in the lexicon of alternatives

only when a predetermined upper limit value of the frequency, expressed by an

absolute number of the text element replacements or a ratio of a number of the text

element replacements with respect to an overall number of text elements examined, is

not reached **(Col 5 lines 17-20,** e.g. when 100% is not reached**)**.

It would have been obvious to one of ordinary skill in the art at the time of the

invention to modify the invention of Franz by evaluating a frequency of each text

element examined in the at least one source of knowledge; and recording the text

element replacements as alternatives in the lexicon of alternatives only when a

predetermined upper limit value of the frequency, expressed by an absolute number of

the text element replacements or a ratio of a number of the text element replacements

with respect to an overall number of text elements examined, is not reached, in order to

solve misrecognition problems as suggested by Ortega '816.

12.   Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Franz et

al. (6,278,968) in view of Chen (5,864,805).

Consider claim 12, Franz does not, but Chen discloses analyzing time positions

of the text element replacements with respect to the spoken text; and recording the text

element replacements as alternatives in the lexicon of alternatives only when there is a

corresponding text element in the spoken text that is similar in terms of time **(Col 3

lines 11-20, lines 21-23, lines 32-39, Col 4 lines 40-46).**

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Franz by analyzing time positions of the text element replacements with respect to the spoken text; and recording the text element replacements as alternatives in the lexicon of alternatives only when there is a corresponding text element in the spoken text that is similar in terms of time in order to fix word boundaries problems, as suggested by Chen **(Col 1 lines 44-46)**.

13.   Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Franz et al. (6,278,968) in view of Ortega et al. (6,332,122), herein referred to as Ortega '122.

Consider claim 15, Franz does not, but Ortega '122 discloses subdividing the plurality of entries according to author of the spoken text or a corrected text **(Abstract)**.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Franz by subdividing the plurality of entries according to author of the spoken text or a corrected text in order to overcome difficulties in identifying multiple users, as suggested by Ortega '122 **(Col 1 lines 19-26)**.

Conclusion

14.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jesse Pullias whose telephone number is 571/270-5135. The examiner can normally be reached on M-F 9:00 AM - 4:30 PM. If

attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, David Hudspeth can be reached on 571/272-7843. The fax phone number

for the organization where this application or proceeding is assigned is 571/270-6135.

15.   Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

/Jesse S. Pullias/
Examiner, Art Unit 2626

/David R Hudspeth/

Supervisory Patent Examiner, Art Unit 2626